

Fissidens strictus

COMMON NAME

Moss

SYNONYMS

None.

FAMILY

Fissidentaceae

AUTHORITY

Fissidens strictus Hook.f. et Wilson

FLORA CATEGORY

Non-vascular – Native

ENDEMIC TAXON

No

ENDEMIC GENUS

No

ENDEMIC FAMILY

No

STRUCTURAL CLASS

Mosses

NVS CODE

FISSTR

CURRENT CONSERVATION STATUS

2009 | At Risk – Naturally Uncommon | Qualifiers: DP, RR, TO

PREVIOUS CONSERVATION STATUS

2004 | Threatened – Nationally Endangered

DISTRIBUTION

Indigenous. Australia and New Zealand. In New Zealand recorded from Northland (Puketi Forest and Kerikeri), the Waitakere Ranges west of Auckland, and from the Auckland Islands.



Fissidens strictus. Photographer: Bill Malcolm, Licence: All rights reserved.



Fissidens strictus. Photographer: Bill Malcolm, Licence: All rights reserved.

DETAILED DESCRIPTION

Plants medium sized for the genus, saxicolous, rheophytic, black except for green shoot tips; shoots rigid, forming dense, smooth mats or erect tufts, 6-15 mm long, 1-2 mm wide, occasionally branched; rhizoids dense at shoot base, rare elsewhere; stems without, or with very weak, central strand, axillary hyaline nodules weakly differentiated, uniseriate axillary hairs present; leaves in (15-)20-35(-40) pairs, all but youngest usually with tips eroded and surfaces heavily encrusted with epiphytes and detritus, erecto-patent, overlapping, rigid, unaltered when dry, linear, 1.25-2.0 mm long, 0.2-0.3 mm wide; leaf apex acute to obtuse, occasionally bent laterally; vaginant lamina 1/2 of leaf length, narrow throughout, joined to mid-way or more across lamina; dorsal lamina narrow, 8-10 cells wide opposite junction of vaginant lamina, shortly decurrent on stem; nerve white to yellow, often becoming dark red with age, distinct throughout leaf, straight below, often sinuous in apical lamina, failing (5-)6(-10) cells before leaf apex, 25-30 µm wide at junction of vaginant lamina, surface cells with very small lumina in cross-section, deuter cells exposed on the adaxial face; leaf margins crenulate, unbordered; apical and dorsal laminae bistratose to multistratose near the nerve, unistratose in several rows at the margin; vaginant laminae occasionally bistratose adjacent to the nerve; cells of apical and dorsal laminae irregular, strongly incrassate with evenly thickened walls, clear, smooth, gradually increasing in size from margin to nerve, (8-)11-13(-15) µm long in mid-lamina. ?Dioicous. Perichaetia terminal on main stems or axillary branches, perichaetial leaves little modified, archegonia 250-450 µm long; calyptra smooth, mitriform; mature capsules not seen in New Zealand material. Perigonia terminal on main stems

SIMILAR TAXA

Fissidens strictus is mostly likely to be confused with *Fissidens rigidulus* var. *pseudistrictus* from which it differs by the white to yellow (becoming reddish with age) leaf nerve (costa) which is distinct rather than indistinct, and by the unistratose rather than multistratose vaginant laminae (see Beever et al. 2002)

FRUITING

Fruiting specimens are very rarely seen.

THREATS

Extremely vulnerable to changes in water levels, aeration and quality. At least one Northland population is probably extinct due to changes in the surrounding river catchment, pollution, the effects of deforestation and aquatic and emergent weed growth. Recent surveys of a population in the Waitakere Ranges suggest that it has declined seriously for reasons which are not as yet clear. Given this data it is difficult to understand why this species has been assessed as Naturally Uncommon by Glenny et al. (2011). Nevertheless this species has a highly disjunct distribution which seems rather remarkable (see de Lange 2011) and so because it is easily overlooked it is possible that diligent searching may find additional populations in other parts of the country.

SUBSTRATE

Saxicolous, aquatic moss confined to well aerated streams flowing over basalt and andesite rock.

ETYMOLOGY

fissidens: From the Latin fissio 'fission' and dens 'tooth, prong' meaning split tooth and referring to shape of the lamina.

strictus: From the Latin strictus 'upright, stiff'

ATTRIBUTION

Fact Sheet Prepared for NZPCN by: P.J. de Lange August 2007. Description adapted from Beever & Stone (1992).

REFERENCES AND FURTHER READING

Beever, J.E.; Stone, I.G. 1992: Studies of *Fissidens* (Bryophyta: Musci) in New Zealand: *F. taxifolius* Hedw. and *F. integerrimus* Mitt. *New Zealand Journal of Botany* 30: 237-246.

Beever, J. Malcolm, B.; Malcolm, N. 2002: The moss genus *Fissidens* in New Zealand – an illustrated key. Nelson, Micro-Optics Press.

de Lange, P.J. 2011: New location for endangered moss. *Trilepidea* 89: 6-8.

Glenny, D.; Fife, A.J.; Brownsey, P.J.; Renner, M.A.M.; Braggins, J.E.; Beever, J.E.; Hitchmough, R. 2011: Threatened and uncommon bryophytes of New Zealand (2010 Revision). *New Zealand Journal of Botany* 49: 305-327.

NZPCN FACT SHEET CITATION

Please cite as: de Lange, P.J. (Year at time of access): *Fissidens strictus* Fact Sheet (content continuously updated). New Zealand Plant Conservation Network. <https://www.nzpcn.org.nz/flora/species/fissidens-strictus/> (Date website was queried)

MORE INFORMATION

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